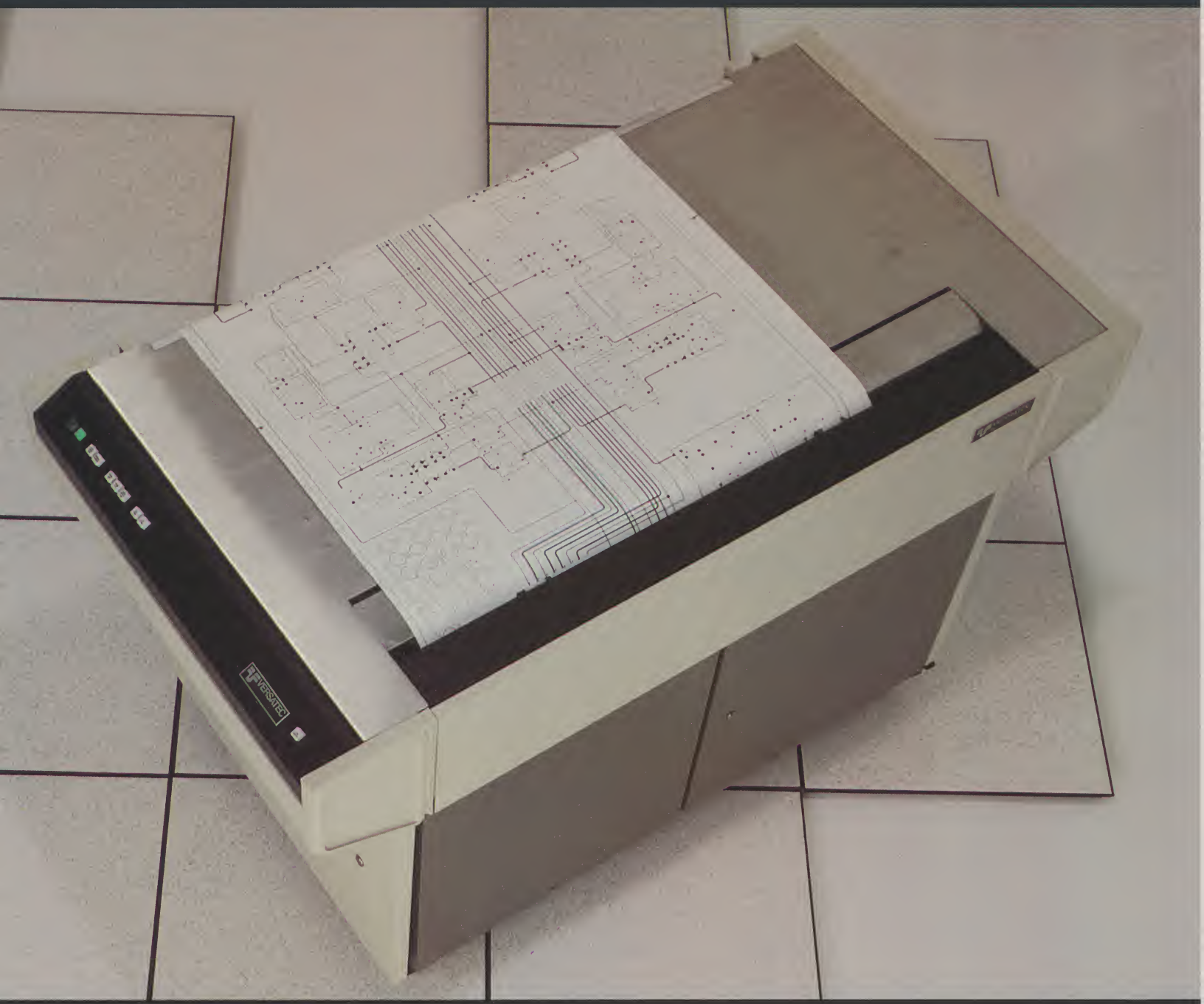
VERSATEC
A XEROX COMPANY

Printer/Plotters, Plotters and Output Systems



Output

Versatec makes it easy.
Versatec delivers more productive output from your computer. Faster output—1000 lines of alphanumerics or 34 square feet of graphics per minute. More versatile output—fast printing, high resolution graphics and archivable hard copy from display. More dependable output—no impact, noise or costly maintenance.

Versatec makes it easy. Our hardware and software interfaces link Versatec electrostatic output devices to most popular computers and display teminals. Versatec remote systems bring output to your users. Complete plotting working stations accept standard CalComp tapes. Printing/plotting accessories handle hard copy from display, vector to raster conversion, multiple inputs or outputs, etc.

We offer a wide choice of media—opaque and translucent papers or clear electrographic film. And we support our products with the world's largest sales and service organization devoted exclusively to electrostatic equipment, software and systems.

For greater productivity in the eighties, specify Versatec printer/plotters, plotters and output systems.

Printer/plotters

The Versatec V-80 is the printer/plotter for the eighties. The V-80 prints 1000 lines per minute, more than three times faster than competitively priced 300 LPM impact printers. It plots a full page of high quality graphics with 200 point-per-inch resolution in seven seconds. It produces big image hard copies from storage tube or raster scan displays. And V-80 does it all, quietly.

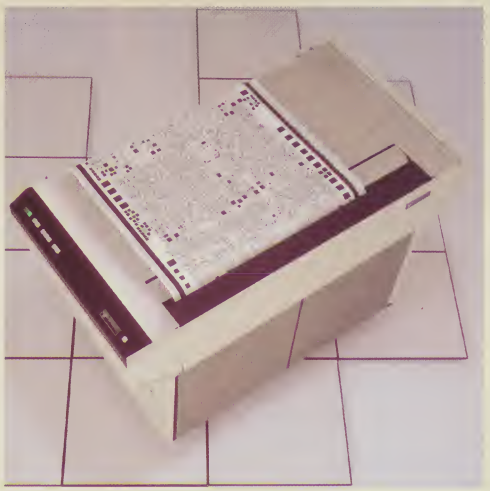
Use V-80 for fast, quiet program listings. Print 132 columns on an 11″ by 8½″ page. Choose from a wide range of character sets—ASCII in three fonts (Gothic, Roman or Courier), nine international languages or a scientific/engineering font. Need graphics? V-80 gives you high resolution plotting for data analysis, CAD, business presentations, seismic sections, mapping, and anywhere you need graphic or symbolic representations.

V-80 non-impact electrostatic writing uses only seven moving parts. That means better reliability and easier maintenance. Modular design enables faster repairs.

Quiet electrostatic writing eliminates the irritating clatter of impact printers. Output is presented on a nine-degree sloped platen for easy viewing. And changing toner is easier, faster and cleaner than changing a printer ribbon.

The Versatec V-80 promises the best price/performance of any output device in its product class. It delivers output for the eighties.

Plotters



If your application calls for big drawings or maps, you could call the Versatec plotter "the productivity machine." No single peripheral device can do more to improve drawing productivity.

Faster turnaround eliminates long, frustrating delays for designers and drafters. They can see the results, make changes, and call for another plot. More throughput means more drawings or maps per day, cost-efficient use of personnel and equipment, and a faster return on capital investment.

As you watch Versatec plotters draw up to 34 *square* feet per minute, think about how long it would take for a pen plotter to do the same job. E-size drawings. Big maps. Seismic sections. PERT charts. Plots that once required hours are drawn in minutes.

If you like your output big and fast, you'll love our plotters. Draw in your choice of widths—11, 20, 22, 24, 36, 42 and 72 inches. Draw with resolution of 100 or 200 points per inch. Use opaque or translucent paper, or electrographic film.

Versatec plotters keep drawing. No pen plotter is as reliable as a Versatec electrostatic. The drawing process is entirely electronic. No pens to change. No adjustments to make. This is a plotter that doesn't require a computer room environment or a data processing operator. You can place your Versatec plotters away from your computer and with your users.

You can drive Versatec plotters with most popular minicomputers. Vector processing hardware, pen plotter-compatible software and comparably priced paper keep costs down.

It's not surprising that every major CAD system builder, including Applicon, Autotrol, Calma, Computervision, Gerber, and Intergraphics support Versatec plotters. Or that more than ninety percent of all CADAM® systems sold by IBM use Versatec. They are gaining unmatched output productivity.

Hard copy

More than one-third of all Versatec printer/plotters are shipped with an optional controller for the production of hard copies from display. If you are looking for hard copy with a bigger, better image, consider Versatec V-80 with a hard copy controller.

In most cases, Versatec gives you a bigger image than competitive devices, within ten seconds. High 200 point-per-inch resolution provides the fine detail required for complex graphics. The resulting copies are legally archivable. No fade. No deterioration. You can write on it with pen or pencil. Cost per copy is approximately three cents.

A selectable priority system enables switching of the printer/plotter from computer-directed printing or plotting to hard copy output. The standard priority system allows the computer to complete a print line/plot scan or continue to end of page/plot. Computer-directed work also can be interrupted immediately via the controller hard copy switch or be continued until the computer has completed the entire job.

Long line driver/receiver options allow the controller to operate up to 1000 feet (305 meters) from the CPU or the plotter. All data, status and control signals are differential. Long line driver/receiver also protects against noise in electrically noisy environments.

Controllers for various display-types (storage tube, raster, etc.) can be chained to serve a mix of display terminals with one printer/plotter.

For Tektronix storage tube terminals (except for 4002-A, T-4002 and 611), ask about our Versatec 230 Hard Copy Controller.

For Tektronix 4025 refresh raster computer display terminals, consider our Versatec 240 Hard Copy Controller.

For other refresh raster displays and digital sources from Aydin Controls, Digital Equipment Corporation, Genisco Computers, Grinnel Systems, Hewlett-Packard, Lexidata, Ramtek, Tektronix, Inc., etc., see our Versatec 210 Video Hard Copy Controller.

Systems

On-line systems for IBM 370/4300 computers.
Versatec on-line systems emulate IBM 3211/3811 or 1403/2821 printer controllers. Unlike other electrostatic plotting systems, Versatec requires *no* changes in IBM hardware or operating system. The intelligent controller adapts to changes in computer models, channel protocols or new applications. It accepts vector data for fast electrostatic plotting without excessive CPU or I/O overhead.

Off-line systems for IBM computers.
Versatec off-line systems accept vector, raster or print data on IBM-compatible tapes. These vector and raster processors also provide off-line plotting from Control Data and Sperry Univac computers.

For more information, ask for "Output systems for IBM" and "IBM Users' Report."

Off-line systems for CalComp plotter users.
The Model 430 Versatec Off-line Plotting Work Station accepts CalComp 921/925 tapes and Versatec ordered vector and raster data. Total processing/plotting time is ten to twenty times faster than 921/925-controlled pen plotting. CRT-displayed menus simplify the creation of canned sequences and graphics manipulation—scaling, expansion or reduction, windowing, rotation, and modification of multiple line widths and line masks.

The 430 can generate multiple copies, select either of two electrostatic plotters, and select files from disk. Integrated disk storage locally stores plots with up to two million vectors. A communications controller can be added to the 430 for remote operation.

System components include a microprocessor with 64K bytes of memory, Winchester disk with a capacity of 24.8 megabytes (formatted), CRT display, dual density magnetic tape drive with imbedded formatter (9-track 800 or 800/1600 bpi), and a bipolar algorithmic processor for sorting and vector to raster conversion.

Remote

Multi-Leave 440-30 Remote Plotting Controller operates as a HASP multi-leaving remote job entry (RJE) work station. Input data is processed and compressed by as much as 60%, then transmitted over dial or leased lines in compressed raster format to the controller. The Versatec controller decompresses raster data and controls plotting or printing.

A console with CRT display and keyboard provides "sign-on" and versatile operator control at the remote site. Console and printer/plotter can be active simultaneously. Data is input at rates from 2400 through 19.2K baud, serial and output at rates to 18,000 bytes per second, parallel.

The Model 444 Remote Plotting Work Station completely offloads plotting tasks. It includes CRT, disk, communications controller and random vector processing facilities. It accepts plot data in random vector form or compressed raster data from IBM host via teleprocessing lines.

CRT-displayed menus provide for scaling, expansion or reduction, windowing, rotation in one-degree increments, and modification of multiple line widths and line masks. The 444 can generate multiple copies, select either of two electrostatic plotters, and select files from disk. Integrated disk storage locally stores plots with up to two million vectors.

Remote spooling. The Remote Spooling Vector Processor (RSVP™) emulates IBM 2780/3780 terminals. It accepts compressed raster, ordered vector and print data via teleprocessing lines. Remote mag tape spooling provides for high quality, constant speed electrostatic plotting. System components include an intelligent vector processor, magnetic tape deck, and up to four plotters or printer/plotters. Local operation supports data transfer from tape to printer/plotter; card to tape or printer/plotter.

Interfacing

Controllers.
Versatec on-line printer/plotter controllers interface with most popular computers. These software and hardware data handlers provide electrical and physical connection between a specific computer and the Versatec plotter. They supply plug-in hardware and software driver compatibility.

Controllers are in the form of printed circuit boards or rack-mounted enclosures with their own power supply. In most cases, they include stand-alone diagnostic software programs and software drivers for print, plot and simultaneous print/plot functions. Data transfer may be programmed input/output (PIO) or direct memory access (DMA).

Plotting software.
Versaplot™ software consists of FORTRAN-callable subroutines compatible with basic pen plotter routines. These routines allow most user and commercial programs originally written for pen plotters to be used with any Versatec plotter.

Additional subroutines, GRID, TONE and CURVE, exploit the high density capabilities of Versatec electrostatic plotters. GRID draws horizontal and/or vertical grid patterns with user-defined line masks. TONE performs area shading with user-defined patterns in user-specified polygonal areas. CURVE generates smooth (dashed or solid) curved lines through scaled or unscaled coordinate data points.

Application-oriented algorithms offer a choice of the best vector ordering technique for a given application, plot density or plot size. Versaplot software can generate raster data or be used to produce partially ordered data for final processing via the Versatec Vector-to-Raster Converter™. The user can specify global scaling for a window or an entire plot, set multiple line widths, and automatically strip output into consecutive sections for plots larger than physical plotter width.

Supplies

Versatec offers a complete line of paper (opaque and translucent), electrographic film, toner and other electrographic supplies. Versatec's own research and development group, staffed by specialists in electro-chemistry and media technology, continue to improve the consistency and quality of hard copy output. A comprehensive quality assurance program maintains strict conformance to detailed specifications.

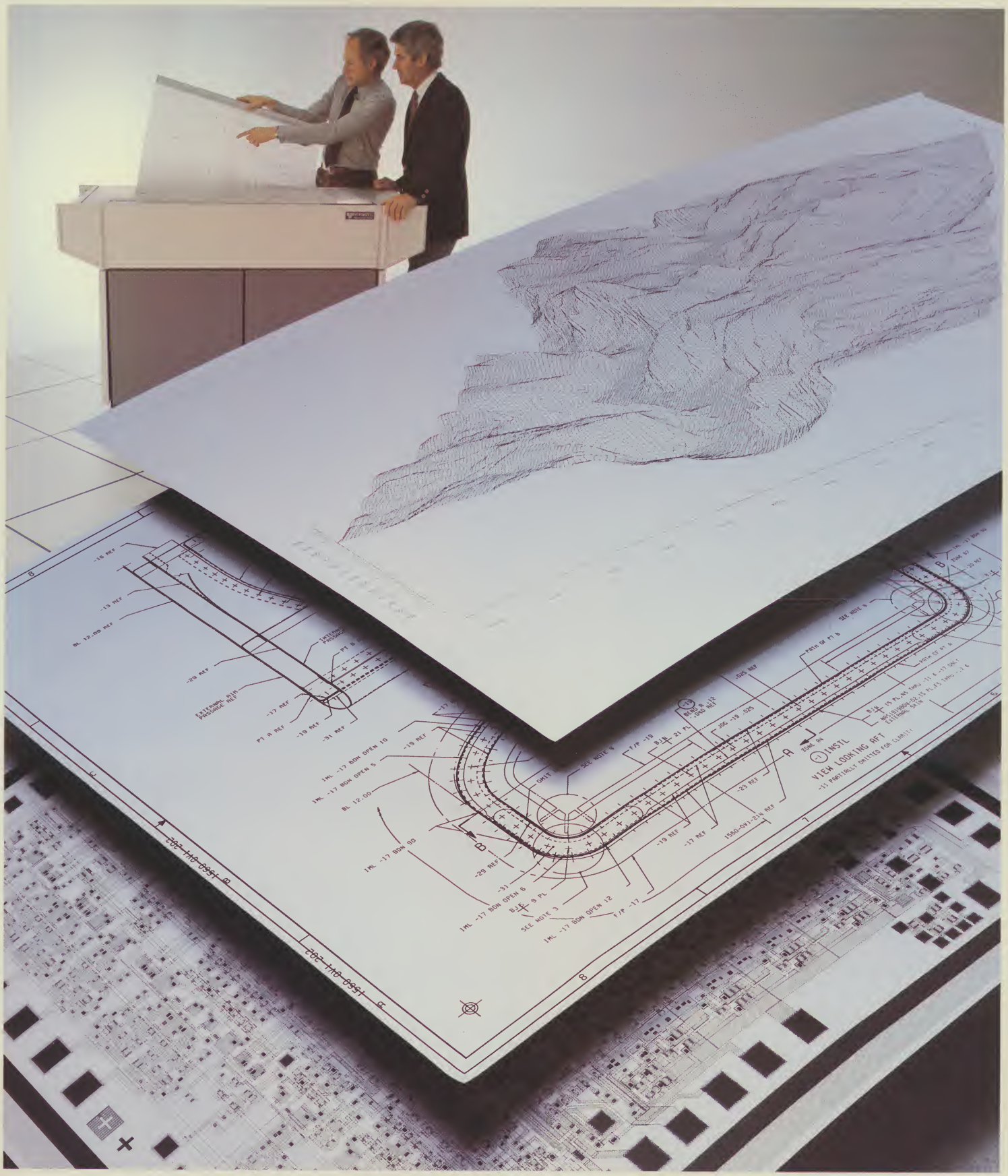
Versatec supply specialists help users optimize performance, inventory control and economy. Two regional warehouses offer fast, efficient shipment of supplies, usually within 48 hours from receipt of order.

One toll-free call from anywhere in the continental U.S.A.* to a Versatec supply specialist assures prompt delivery of electrographic paper and toner supplies designed specifically for Versatec machines.

For information, call toll-free (800) 538-6468. In California, call (408) 988-2800.

*Except California

Meeting graphic requirements in the 80's.



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Versatec, a Xerox company, is the world's leading manufacturer of electrostatic printer/plotters, plotters and output systems. Supporting this family of products is a company totally dedicated to users of this technology.

Versatec has sold more electrostatic output devices than all other competitors combined. We offer more electrostatic models, interfaces, software packages and accessories. And we back those products with more comprehensive support—more electrostatic service specialists, a bigger inventory of spares and more detailed documentation.

For greater productivity in the eighties, specify Versatec printer/plotters, plotters and output systems.

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DETACH

Send information about...

- ☐ V-80 printer/plotter
- ☐ Hard copy from display
  - ☐ Tektronix storage tube
  - ☐ Tektronix raster scan
  - ☐ Other video sources _____
    please specify manufacturer & model
- ☐ Plotters
  Paper widths:
  - ☐ 11″
  - ☐ 20″
  - ☐ 22″
  - ☐ 24″
  - ☐ 36″
  - ☐ 42″
  - ☐ 72″
- ☐ Output systems for IBM 370 & 4300
  - ☐ On-line
  - ☐ Off-line
  - ☐ Remote
    - ☐ Multi-Leave 440-30 Remote Plotting Controller
    - ☐ Model 444 Remote Plotting Work Station
    - ☐ Remote Spooling Vector Processor.
- ☐ Off-Line Plotting Work Station for electrostatic plotting from CalComp tapes
- ☐ Interface/controller for _____computer and _____operating system.
- ☐ Versaplot™ electrostatic plotting software
- ☐ Versaplot™/Gray Scale Software
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